

# MicroVAX 3100 Model 85/95/96

---

## Installation Information

Order Number: EK-A0716-IN. C01

### **DATE 1995**

This manual describes how to install and test the MicroVAX 3100 Model 85, Model 95, and Model 96.

### **Revision Information:**

This manual supersedes  
EK-A0716-IN. B01

---

**DATE 1995**

Digital Equipment Corporation makes no representations that the use of its products in the manner described in this publication will not infringe on existing or future patent rights, nor do the descriptions contained in this publication imply the granting of licenses to make, use, or sell equipment or software in accordance with the description.

Possession, use, or copying of the software described in this publication is authorized only pursuant to a valid written license from Digital or an authorized sublicensor.

**FCC NOTICE:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Any changes or modifications made to this equipment may void the user's authority to operate this equipment.

Operation of this equipment in a residential area may cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

**Warning!**

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This warning only applies to the MicroVAX 3100 Model 85.

**Achtung!**

Dieses ist ein Gerät der Funkstörgrenzwertklasse A. In Wohnbereichen können bei Betrieb dieses Gerätes Rundfunkstörungen auftreten, in welchen Fällen der Benutzer für entsprechende Gegenmaßnahmen verantwortlich ist.

Diese Warnung bezieht sich nur auf Geräte des Typs MicroVAX 3100 Modell 85.

**Attention!**

Ceci est un produit de Classe A. Dans un environnement domestique, ce produit risque de créer des interférences radioélectriques, il appartiendra alors à l'utilisateur de prendre les mesures spécifiques appropriées.

Cette mise en garde ne s'applique qu'au MicroVAX 3100 modèle 85.

© Digital Equipment Corporation 1994. All Rights Reserved.

The postpaid Reader's Comments form at the end of this document requests your critical evaluation to assist in preparing future documentation.

The following are trademarks of Digital Equipment Corporation: DEC, Digital, MicroVAX, OpenVMS, ThinWire, VAX, VAX DOCUMENT, and the DIGITAL logo.

All other trademarks and registered trademarks are the property of their respective holders.

S2808

---

# Contents

<b>Preface</b> .....	v
<b>1 Installation Procedure</b>	
Step 1: Choosing a Suitable Location .....	1-1
Step 2: Unpacking the System and Identifying the Parts .....	1-2
Step 3: Connecting the Console Terminal .....	1-3
Step 4: Connecting the ThinWire Terminator .....	1-4
Step 5: Connecting the Standard Ethernet Loopback Connector .....	1-5
Step 6: Connecting the Power Cord .....	1-6
Step 7: Turning on the Console Terminal and System Unit .....	1-7
Step 8: Checking the Power-Up Test Results .....	1-8
Step 9: Connecting the System to a Network .....	1-10
Step 10: Connecting External Options to the System .....	1-10
Step 11: Booting the Operating System .....	1-10
<b>Figures</b>	
1-1      Successful Power-Up Test Screen .....	1-8
1-2      Unsuccessful Power-Up Test Screen with an Error Report .....	1-9



---

## Preface

This manual describes how to install and test the MicroVAX™ 3100 Model 85, Model 95, and Model 96. It also refers to information on connecting the system to a network, connecting external options to the system, and booting the operating system.

### Audience

This manual is intended for anyone who wants to install the MicroVAX 3100 Model 85/95/96. It is written for both experienced and inexperienced users.

### Structure of This Manual

The procedure for installing the MicroVAX 3100 Model 85/95/96 is presented in only one chapter. Each section in the chapter represents a major step in the procedure and contains detailed instructions to follow.

### Additional Information

See the *MicroVAX 3100 Model 85/95/96 Operator Information* manual for the list of related documents.

## Conventions

The following conventions are used in this manual:

<b>Convention</b>	<b>Description</b>
MONOSPACE type	Text displayed on the screen is shown in monospace type.
<i>italic type</i>	Italic type emphasizes important information and indicates the complete titles of manuals.
<b>Note</b>	A note contains information that is of special importance to the user.

# 1

---

## Installation Procedure

This chapter shows you, step by step, how to install the MicroVAX 3100 Model 85/95/96.

### Step 1: Choosing a Suitable Location

Follow these guidelines when you choose where to place the system unit:

- Place the system unit where the room temperature is between 10°C and 40°C (50°F and 104°F) and the humidity is between 10% and 90%.
- Place the system unit at least 1 metre (3 feet) from heaters, photocopying machines, or other operating equipment.
- Place the system unit in a well-ventilated location.
- Place the system unit on a work surface, which is raised above the floor.
- Keep the air vents on either side of the system unit clear.
- Do not place the system unit on its side.
- Do not expose the system unit to direct sunlight or abrasive particles.

---

#### Note

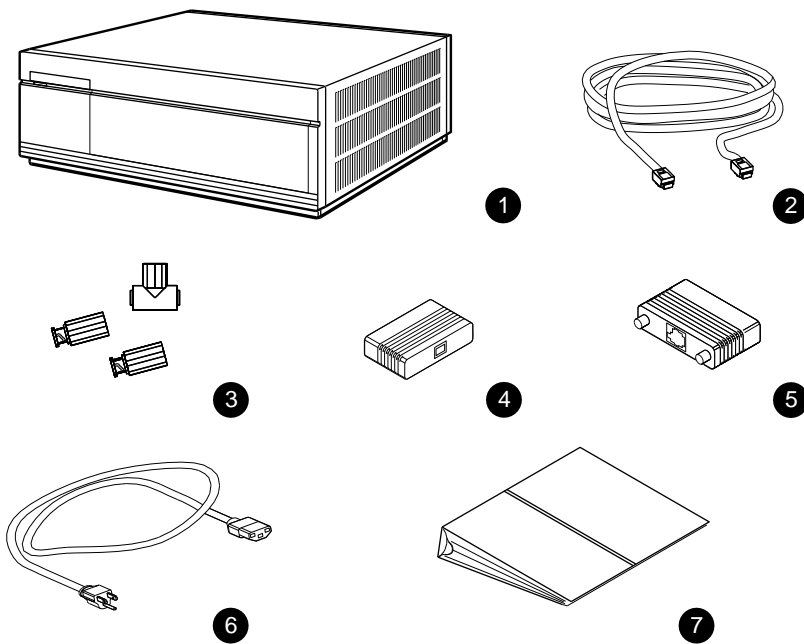
---

A console terminal is required for this installation, but is not supplied with the system. You can order one from your Digital™ sales representative.

---

## Step 2: Unpacking the System and Identifying the Parts

1. Unpack the system.
2. Make sure that you have all the parts listed on the packing slip. The following loose-piece accessory kit is shipped with all basic systems. If you do not have all the parts listed, contact your Digital Sales representative.

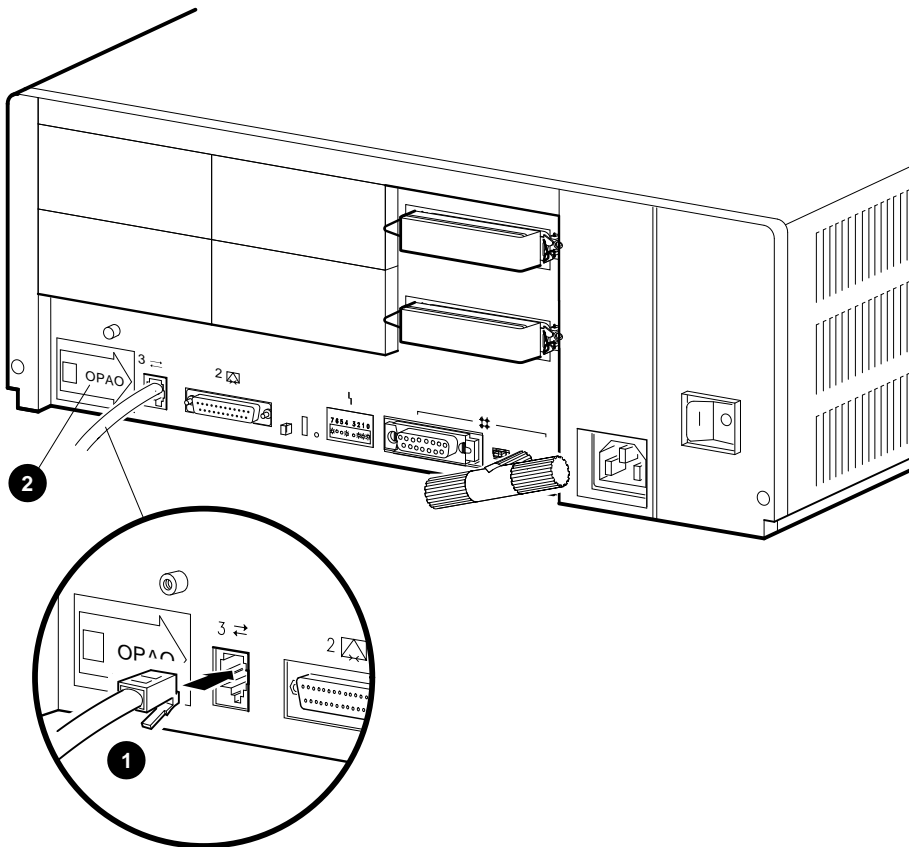


RE\_EN06058A\_91

- ❶ System Unit
- ❷ DEC423 Terminal Cable (BC16E-25)
- ❸ One ThinWire™ Ethernet T-Connector (H8223) and Two Terminators (H8225)
- ❹ Standard Ethernet Loopback Connector (12-22196-01)
- ❺ RS232 to DEC423 Adapter (H8575-A)
- ❻ Power Cord
- ❼ Documentation and Software Licenses

### Step 3: Connecting the Console Terminal

1. Connect one end of the terminal cable to modified modular jack (MMJ) port 3.
2. Connect the other end of the terminal cable to a DEC423 (MMJ) communications port on the console terminal. If your terminal has only RS232 ports, use the RS232 to DEC423 adapter (H8575-A) to provide an MMJ port on the terminal.
3. If you want, remove the label covering MMJ ports 0 and 1.

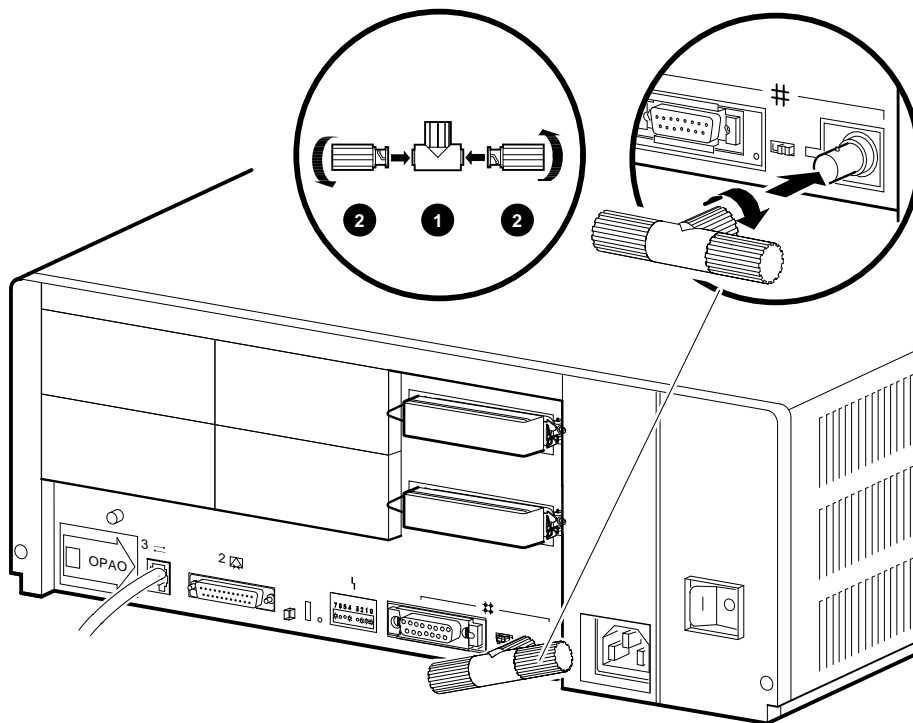


MLO-012030

- 1 Terminal Cable
- 2 Label

## Step 4: Connecting the ThinWire Terminator

1. Assemble the T-connector and the two terminators to form a ThinWire terminator.
2. Connect the ThinWire terminator to the system unit.

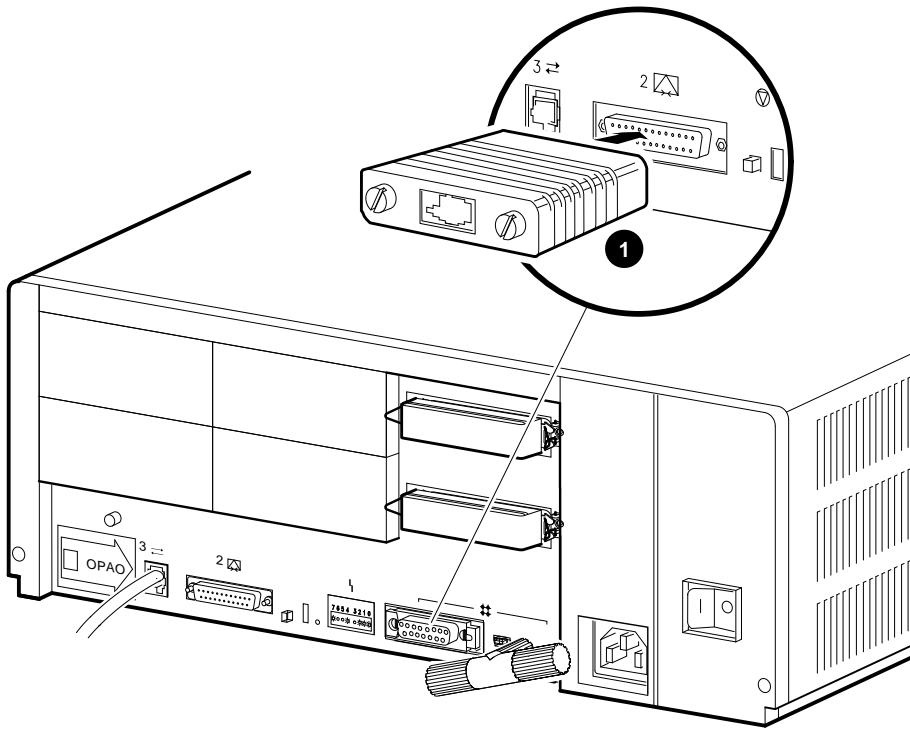


MLO-012031

- ❶ T-Connector
- ❷ Terminator

## Step 5: Connecting the Standard Ethernet Loopback Connector

Connect the standard Ethernet loopback connector (12-22196-01) to the system unit.

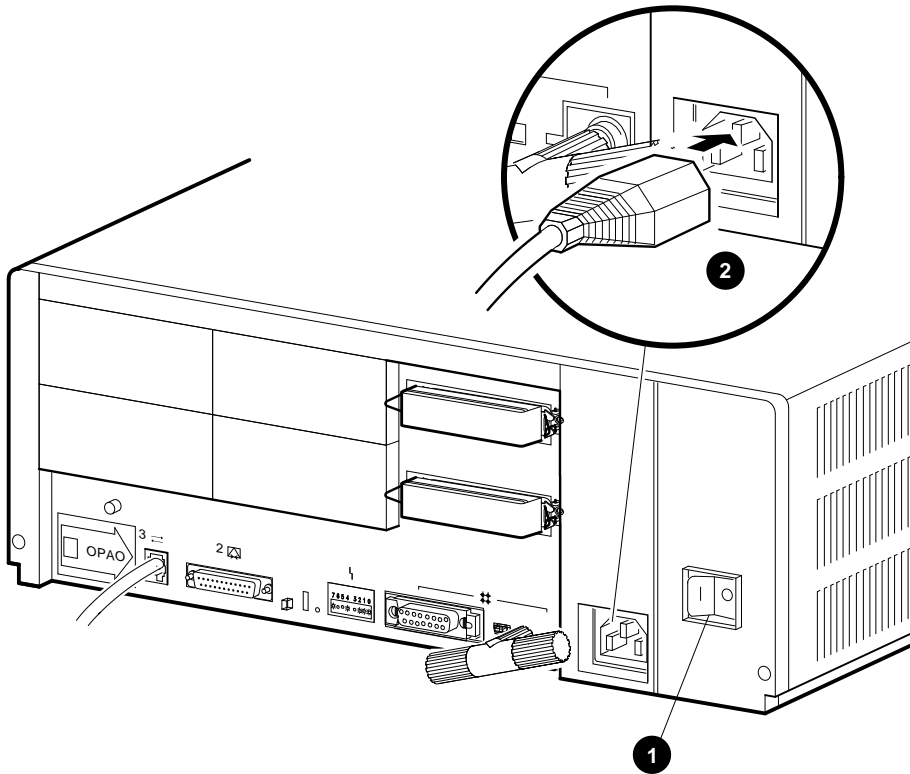


MLO-012032

- ❶ Standard Ethernet Loopback Connector (12-22196-01)

## Step 6: Connecting the Power Cord

1. Ensure that the on/off switch is in the off (O) position.
2. Connect the power cord to the system unit.
3. Connect the other end of the power cord to an isolated, grounded circuit.

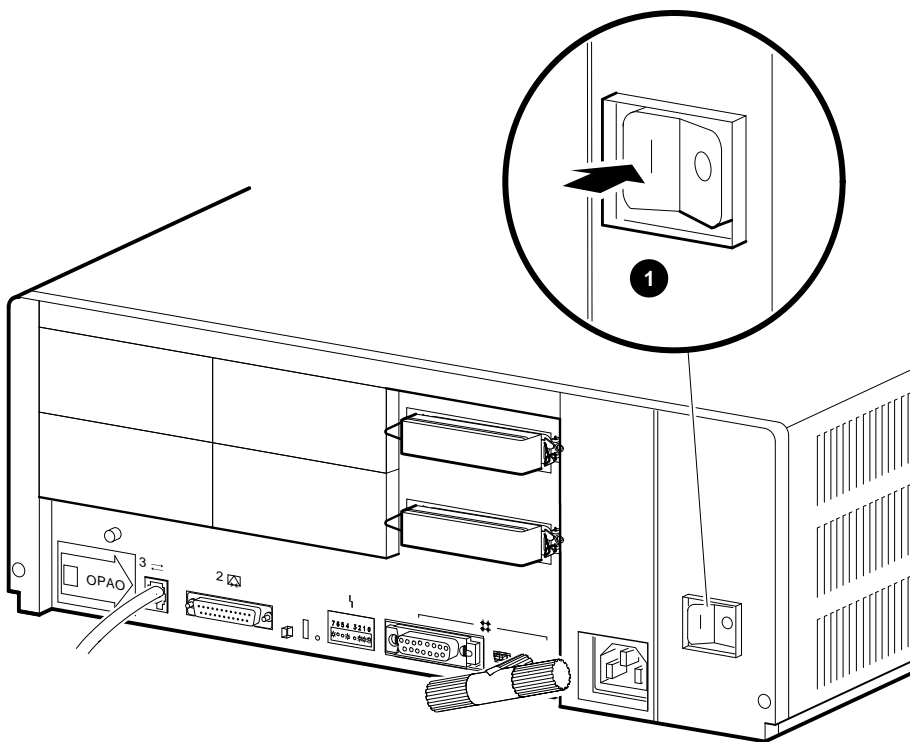


MLO-012033

- ❶ On/Off Switch
- ❷ Power Cord

## Step 7: Turning on the Console Terminal and System Unit

1. Turn on the console terminal. Wait until it completes its power-up test. (See the terminal documentation for more information.)
2. Check the terminal settings. See the *MicroVAX 3100 Model 85/95/96 Operator Information* manual for the list of correct settings.
3. Turn on the system unit by setting the on/off switch to the on ( | ) position.



MLO-012034

**1** On/Off Switch

## Step 8: Checking the Power-Up Test Results

The power-up test can take several minutes to complete, depending on the number of installed options you have and on which default settings you use:

- If the power-up test results on the screen are similar to the results in Figure 1–1, the system has passed the power-up test. Go to step 9.
- If the power-up test results on the screen are not similar to the results in Figure 1–1, the system has not passed the power-up test. Go to substep 1.

**Figure 1–1 Successful Power-Up Test Screen**

```
KA55-A or KA51-A or KA56-A V2.6, VMB 2.15 ❶
Performing normal system tests.
74..73..72..71..70..69..68..67..66..65..64..63..62..61..60..59..
58..57..56..55..54..53..52..51..50..49..48..47..46..45..44..43.. ❷
42..41..40..39..38..37..36..35..34..33..32..31..30..29..28..27..
26..25..24..23..22..21..20..19..18..17..16..15..14..13..12..11..
10..09..08..07..06..05..04..03..
Tests completed. ❸
>>> ❹
```

❶ Central Processing Unit (CPU) name, Firmware version number, and Virtual Memory Boot (VMB) version number

❷ Read-Only Memory (ROM) based diagnostics countdown

❸ Status message

❹ Console prompt

1. Write down the error messages and the error summaries. Figure 1–2 shows an example of an error message and an error summary.
2. Set the on/off switch to the off (O) position.
3. Make sure that all the connections you made in step 3, step 4, step 5, and step 6 are correct.
4. Set the on/off switch to the on ( | ) position.
5. If an error report is still displayed, see the *MicroVAX 3100 Model 85/95/96 Troubleshooting and Diagnostic Information* manual.

**Figure 1–2 Unsuccessful Power-Up Test Screen with an Error Report**

```
KA55-A or KA51-A or KA56-A V2.6, VMB 2.15
Performing normal system tests.
74..73..72..71..70..69..68..67..66..65..64..63..62..61..60..59..

? Test_Subtest_31_05 Loop_Subtest=00 Err_Type=FF DE_Memory_Setup_CSRs.lis ❶
Vec=0000 Prev_Errs=0000 P1=00000000 P2=01000000 P3=00000001 P4=00010000
P5=2101801C P6=00000007 P7=80000003 P8=0000CF4A P9=00000001 P10=2006B8D8
r0=00000002 r1=21018000 r2=00000008 r3=81000000 r4=00000001 r5=01000000 ❷
r6=2006EB77 r7=21018048 r8=00000000 r9=20140758 r10=00000000 r11=FFFFFFFF
dser=0000 cesr=00000000 intmsk=00 icsr=01 pcsts=FA00 pcadr=FFFFFFF8 pcctl=FC13
cctl=00000020 bcetsts=0360 bcedsts=0F00 cefsts=00019200 nests=00
mmcdsr=01FE6600 mesr=00000000

58..57..56..55..54..53..52..51..50..49..48..47..46..45..44..43.. ❸
42..41..40..39..38..37..36..35..34..33..32..31..30..29..28..27..
26..25..24..23..22..21..20..19..18..17..16..15..14..13..12..11..
10..09..08..07..06..05..04..03..

16 MB RAM, SIMM Set (0A,0B,0C,0D) present
Memory Set 0: 00000000 to 0FFFFFFF, 16MB, 32768 good pages, 0 bad pages

Error: SIMM Set 1 (1E,1F,1G,1H) ❹
SIMM_1E = 64MB SIMM_1F = 64MB SIMM_1G = 64MB SIMM_1H = 00MB ??

Total of 16MB, 32768 good pages, 0 bad pages, 104 reserved pages

Normal operation not possible. ❺
```

- ❶ Error message
- ❷ Error summary
- ❸ Power-up test completion
- ❹ Specific error information on the test that failed
- ❺ Status message

---

**Note**

---

Step 9 and step 10 are optional. However, step 11 is mandatory.

---

### **Step 9: Connecting the System to a Network**

If you want to connect the system to a network, see the *MicroVAX 3100 Model 85/95/96 Operator Information* manual.

### **Step 10: Connecting External Options to the System**

If you want to connect external options to the system, see the *MicroVAX 3100 Model 85/95/96 Operator Information* manual.

### **Step 11: Booting the Operating System**

The system is supplied with factory installed software (FIS) on the system disk. Boot the operating system following the procedures in the *OpenVMS™ Factory Installed Software User Information*.

## How to Order Additional Documentation

---

### Technical Support

If you need help deciding which documentation best meets your needs, call 800-DIGITAL (800-344-4825) and press 2 for technical assistance.

### Electronic Orders

If you wish to place an order through your account at the Electronic Store, dial 800-234-1998, using a modem set to 2400- or 9600-baud. You must be using a VT terminal or terminal emulator set at 8 bits, no parity. If you need assistance using the Electronic Store, call 800-DIGITAL (800-344-4825) and ask for an Electronic Store specialist.

### Telephone and Direct Mail Orders

<b>From</b>	<b>Call</b>	<b>Write</b>
U.S.A.	DECdirect Phone: 800-DIGITAL (800-344-4825) Fax: (603) 884-5597	Digital Equipment Corporation P.O. Box CS2008 Nashua, NH 03061
Puerto Rico	Phone: (809) 781-0505 Fax: (809) 749-8377	Digital Equipment Caribbean, Inc. 3 Digital Plaza, 1st Street Suite 200 Metro Office Park San Juan, Puerto Rico 00920
Canada	Phone: 800-267-6215 Fax: (613) 592-1946	Digital Equipment of Canada Ltd. 100 Herzberg Road Kanata, Ontario, Canada K2K 2A6 Attn: DECdirect Sales
International	—————	Local Digital subsidiary or approved distributor
Internal Orders <sup>1</sup> (for software documentation)	DTN: 264-3030 (603) 884-3030 Fax: (603) 884-3960	U.S. Software Supply Business Digital Equipment Corporation 10 Cotton Road Nashua, NH 03063-1260
Internal Orders (for hardware documentation)	DTN: 264-3030 (603) 884-3030 Fax: (603) 884-3960	U.S. Software Supply Business Digital Equipment Corporation 10 Cotton Road Nashua, NH 03063-1260

---

<sup>1</sup>Call to request an Internal Software Order Form (EN-01740-07).



## Reader's Comments

MicroVAX 3100  
Model 85/95/96  
Installation Information  
EK-A0716-IN. C01

---

Your comments and suggestions help us improve the quality of our publications.  
Thank you for your assistance.

I rate this manual's:	Excellent	Good	Fair	Poor
Accuracy (product works as manual says)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Completeness (enough information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity (easy to understand)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organization (structure of subject matter)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Figures (useful)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Examples (useful)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Index (ability to find topic)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Page layout (easy to find information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I would like to see more/less \_\_\_\_\_

What I like best about this manual is \_\_\_\_\_

What I like least about this manual is \_\_\_\_\_

I found the following errors in this manual:

Page	Description
_____	_____
_____	_____
_____	_____

Additional comments or suggestions to improve this manual:

For software manuals, please indicate which version of the software you are using: \_\_\_\_\_

Name/Title \_\_\_\_\_ Dept. \_\_\_\_\_

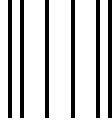
Company \_\_\_\_\_ Date \_\_\_\_\_

Mailing Address \_\_\_\_\_

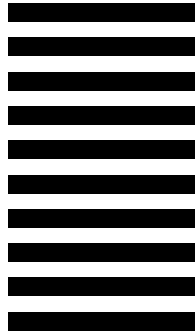
\_\_\_\_\_ Phone \_\_\_\_\_

Do Not Tear - Fold Here and Tape

**digital**™



No Postage  
Necessary  
If Mailed  
in the  
United States



**BUSINESS REPLY MAIL**  
FIRST CLASS PERMIT NO. 33 MAYNARD MASS.

POSTAGE WILL BE PAID BY ADDRESSEE

DIGITAL EQUIPMENT CORPORATION  
Shared Engineering Services  
MLO5-5/E76  
2 THOMPSON STREET  
MAYNARD, MA 01754-1716



Do Not Tear - Fold Here